

REMARKS/ARGUMENTS

In the Office Action of December 5, 2008, claims 1-10 are rejected. Additionally, the specification and the drawings are objected to. In response, claims 1, 2, 4 and 8 have been amended, claims 6, 7 and 9 have been canceled and new claims 11-14 have been added. Additionally, the specification has been amended. Applicant hereby requests reconsideration of the application in view of the claim amendments, the new claims and the below-provided remarks.

Objections to the Drawings

The Office Action states that functional blocks of Figures 1 and 6 should be labeled with corresponding functional names in order to help viewers to understand the block diagrams shown in the Figures.

In response, Applicant respectfully submits that the functional blocks of Figures 1 and 6 are identified and described in the specification at, for example, page 4, lines 2-11 and page 7, lines 16-25. Additionally, the current application is a U.S. National Stage application. The drawing requirements for U.S. National Stage applications are identified in MPEP 1825 and labeling of figures with functional names is not required (see PCT Rule 11.11). Further, MPEP 1893.03(f) states that “[t]he USPTO may not impose requirements beyond those imposed by the Patent Cooperation Treaty (e.g., PCT Rule 11).” In view of the above, Applicant respectfully asserts that labeling Figures 1 and 6 with functional names is not necessary in the current application.

As a result, Applicant respectfully requests that the objections to the drawings be withdrawn.

Objection to the Specification

The Office Action states that claim 10 recites the limitation “A computer program product for a device computing a set of instructions, which when loaded into the device, causes said device to carry out the method as claimed in claim 8” and such a “computer program product” appeared in claim 10 is not described in the specification.

In response, Applicant has amended the paragraph beginning at page 2, line 30 of the specification to replace the phrase “a computer program product” with the phrase “a computer program product for a device computing a set of instructions, which when loaded into the device, causes the device to carry out the method.”

Thus, Applicant respectfully requests that the objection to the specification be withdrawn.

Claim Objection

Claim 9 is objected to because it recites a “multi-carrier transmission signal.” Applicant has canceled claim 9 and thus the claim objection is rendered moot.

Claim Rejections under 35 U.S.C. 101

Claims 8-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In particular, the Office Action states that claims 8 and 9 are rejected as not falling within one of the four statutory categories of invention. Additionally, the Office Action states that claim 10 is rejected because claim 10 is directed to a computer program product, which is considered a computer program, and that a computer program is a non-statutory subject matter.

In response, claim 8 has been amended to include the limitation “modulating each sub-carrier using a first constellation to convey additional information signals at a multi-carrier transmission system” and the limitation “modulating each sub-carrier using a second constellation to convey parameter signaling signals at the multi-carrier transmission system.” Support for the amendments can be found in Applicant’s specification at, for example, original claims 1 and 8. Applicant respectfully submits that amended claim 8 is directed to statutory subject matter, because claim 8 recites a process tied to another statutory category, in particular a multi-carrier transmission system, which places the claim squarely within the categories defined by 35 U.S.C. 101.

Claim 9 has been canceled and thus the claim rejection to claim 9 under 35 U.S.C. 101 is rendered moot.

With respect to claim 10, Applicant respectfully submits that a computer program product is different from a computer program because a computer program product is a computer program stored in a computer medium.

Thus, Applicant respectfully requests that the claim rejections under 35 U.S.C. 101 be withdrawn.

Claim Rejections under 35 U.S.C. 112

Claims 1-7 and 10 are rejected under 35 U.S.C. 112, first paragraph. In particular, claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Additionally, claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, because each of the claims 1-7 is a single means claim.

In response, with respect to claim 10, Applicant has amended the paragraph beginning at page 2, line 30 of the specification to replace the phrase “a computer program product” with the phrase “a computer program product for a device computing a set of instructions, which when loaded into the device, causes the device to carry out the method.”

Claim 1 has been amended to include the limitation “a mapper configured to modulate each sub-carrier using a first constellation to convey additional information signals” and the limitation “a signal block configured to modulate each sub-carrier using a second constellation to convey parameter signaling signals.” Support for the amendment can be found in Applicant’s specification at, for example, original claim 1, Figs. 1 and 6, page 4, lines 2-11 and page 7, lines 16-25.

Claims 2-5 depend from and incorporate all of the limitations of the independent claim 1. Thus, the rejections to claims 2-5 under 35 U.S.C. 112 have been overcome by the above-identified amendment to claim 1.

Claims 6 and 7 have been canceled and thus the rejections to claims 6 and 7 under 35 U.S.C. 112 are rendered moot.

In view of the claim amendments, Applicant respectfully requests that the claim rejections under 35 U.S.C. 112 be withdrawn.

Applicant notes herein that claims 1, 2, 4 and 8 have been further amended to correct minor informalities.

Claim Rejections under 35 U.S.C. 102

Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Fazel et al. (U.S. Pat. No. 5,426,132). Claim 7 has been canceled and thus the rejection to claim 7 under 35 U.S.C. 102 is rendered moot.

Claims 1-5, 8 and 10

Applicant notes that claims 8 and 10 are rejected under 35 U.S.C. 101. Additionally, Applicant notes that claims 1-5 and 10 are rejected under 35 U.S.C. 112, first paragraph. As described above, the claim amendments and the amendments to the specification have been made to overcome the above-identified claim objections and claim rejections. Thus, Applicant respectfully asserts that claims 1-5, 8 and 10 are now in condition for allowance.

New Claim 11-14

New claims 11-14 have been added. Support for claims 11-14 is found in Applicant's specification at, for example, Fig. 5, Table 1, the paragraph beginning at page 6, line 32, and page 7, lines 4-15.

Claims 11-14 depend from and incorporate all of the limitations of the independent claim 1. Thus, Applicant respectfully asserts that claims 11-14 are allowable at least based on allowable claim 1. Additionally, each of the new claims 11-14 is allowable because of the respective additional limitation.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,

David Le Goff

Date: March 5, 2009

By: /thomas h. ham/

Thomas H. Ham

Reg. No. 43,654

Wilson & Ham

PMB: 348

2530 Berryessa Road

San Jose, CA 95132

Phone: (925) 249-1300

Fax: (925) 249-0111